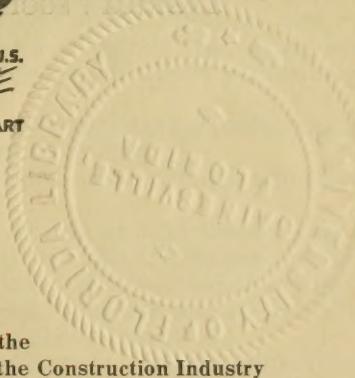
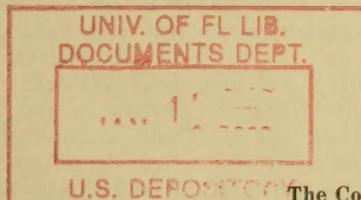


NATIONAL RECOVERY ADMINISTRATION

PROPOSED CODE OF FAIR COMPETITION
FOR THE
PROFESSIONAL ENGINEER'S
DIVISION OF THE CONSTRUCTION
INDUSTRY

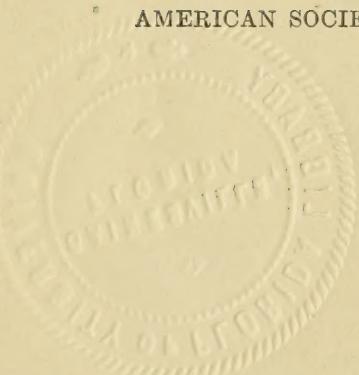
AS SUBMITTED ON AUGUST 31, 1933



The Code for the
Professional Engineer's Division of the Construction Industry
in its present form merely reflects the proposal of the above-mentioned
industry, and *none of the provisions contained therein are*
to be regarded as having received the approval of
the National Recovery Administration
as applying to this industry

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1933

SUBMITTED BY
AMERICAN SOCIETY OF CIVIL ENGINEERS
(II)



PROPOSED CODE OF FAIR COMPETITION FOR THE PROFESSIONAL ENGINEER'S DIVISION OF THE CONSTRUCTION INDUSTRY

PREAMBLE

The American Society of Civil Engineers, organized in 1852, a national association representing the Profession of Civil Engineering, pursuant to the intention of the Engineering Profession, insofar as the practice of the engineering profession is a function of the Construction Industry, to cooperate with the President of the United States in effectuating Title No. I of the National Industrial Recovery Act, during the period of the emergency, hereby recommends and submits for approval pursuant to Section 3 of said Title, the following Code of Fair Competition covering relations between professional engineers, clients or employers, employees and others in respect to all construction work; this Code having been subscribed to by duly authorized representatives of the following professional engineering organizations.

In submitting this Code for the approval of the President and in tendering their agencies for the enforcement thereof, the American Society of Civil Engineers and the other organizations subscribing above declare

- a. that they are truly representative of the engineering profession in so far as it is functional to the Construction Industry;
- b. that they impose no inequitable restrictions on admission to their membership;
- c. that this Code will not permit monopolies or tend toward excessive fees or wages, but will tend toward fair fees and wages and the eradication of unethical and unfair practices such as "bid-shopping" and enforced unfair competition between engineers, and toward the establishment of better professional standards of practice;
- d. that this Code is intended to eliminate unfair competitive practice and to advance the public interest and engineering standards, and to improve standards of working conditions and living, and effectuate the spirit of the policies set forth in the National Industrial Recovery Act.

ARTICLE I—THE GENERAL CODE

The Code of Fair Competition for the Construction Industry, as approved by the President of the United States, is adopted and made a part hereof and shall be attached hereto, and any provisions of this Code of Fair Competition for Professional Engineers which may be inconsistent therewith shall yield thereto.

ARTICLE II—DEFINITIONS AND FUNCTIONS

Professional Engineer.—In the meaning and application of this Code a professional engineer shall be considered to be and include an individual, partnership, or engineering corporation legally operating in responsible charge of the design or supervision of construction work; or a person in the employ of the same and who is registered or licensed in accordance with the provisions of law to practice engineering, or any subdivision thereof, within any State or Territory of the United States; or any person admitted to, or eligible by reason of technical training for admission to membership in any national, state, or regional professional engineering organization, in grades which require, as a constitutional provision, active practice as an engineer for not less than eight years and responsible charge of engineering work for not less than one year; active practice and responsible charge of engineering when functional to the construction industry to be determined as defined in the Constitution of the American Society of Civil Engineers.

Where used hereinafter the word “engineer” shall be construed as an abbreviation of the term “professional engineer” as herein defined.

In the meaning and application of this Code the functions of an engineer shall include the economics of, and the use and design of, materials of construction and the determination of their physical qualities; supervision of the construction of engineering structures; the investigation of the laws, phenomena, and forces of Nature; where any of the same are involved or employed in connection with fixed works for any or all of the following divisions or subjects; irrigation, drainage, water power, water supply, flood control, inland waterways, harbors, municipal improvements, railroads, highways, tunnels, air ports and airways, purification of water, sewerage, refuse disposal, foundations or substructures, framed or homogeneous structures, buildings and bridges; they shall include the investigation of, the design of, and the selection of, the force-resisting and load supporting members of structures; such as foundations, walls, columns, beams, girders, slabs, trusses, and similar members; and the investigation of, design of, and selection of mechanical, electrical, or sanitary component parts of structures; where such investigation, design, and selection requires a knowledge of engineering laws, formulae and practice, a knowledge of the physical properties of the materials used, and a knowledge of the methods used in their installation; and the supervision and coordination of the design and execution thereof. Anyone performing any of these functions shall be considered an engineer subject to all of the conditions of qualification and experience in the above definition of a professional engineer, and subject to all conditions and regulations of this Code.

Where a Professional Engineer registration or license law is in effect, any registered or licensed professional engineer shall be entitled to practice as an engineer but shall not be relieved by that fact from any of the provisions of this Code.

Engineering Assistant.—In the meaning and application of this Code an engineering assistant shall be any person who, not registered or licensed by any state or territory to practice engineering as a profession and not eligible for membership as hereinbefore defined in any professional engineering organization providing for membership

as hereinbefore described, is employed to render technical or other services of a subprofessional nature under the direction of an engineer.

Client.—A client shall be an individual, firm, corporation, or governmental agency who engages the services of an engineer on a fee basis.

Employer.—An employer shall be any individual, firm, corporation, or governmental agency who engages the services of an engineer or an engineering assistant on a salary or wage basis.

Contractor.—A contractor shall be any individual, firm, corporation, or agency contracting to perform the work called for by the engineer's plans and specifications.

ARTICLE III—REQUIRED PROVISIONS

Engineering assistants shall have the right to organize and to deal collectively, through an agency or organization of their own choosing, with an employer.

No engineering assistant shall be required to join or affiliate with any agency or organization, nor shall he be compelled to deal with an employer through such channels. Neither shall he be restrained from voluntary affiliation with, or use of, any agency or organization.

Each engineering assistant shall recognize the contractual relations of employer and employee and failure to render in full the services agreed upon shall be considered as a violation of this Code.

In filing this code, it is agreed that as a condition of approval, the President may impose such conditions, modifications, or additions, exceptions, or exemptions as he may deem necessary or expedient in the public interest to effectuate the policy established in Title I of the National Industrial Recovery Act.

a. *Minimum Wages.*—No engineer or engineering assistant, employed on a salary or wage basis, shall be paid less than the minimum rates which are established regionally or locally by mutual agreements between truly representative groups of employers and employees or as established or approved by the National Control Committee, as defined in Article VII, through its subordinate regional, state or local committees, and approved by the President, as provided by Section 7 (b) of the National Industrial Recovery Act. Where such rates are not so established, the minimum rates of wages shall be not less than those required by Article 3—"Minimum Wages of the 'Code of Fair Competition for the Construction Industry'".

b. *Maximum Hours.*—Maximum working hours for engineering assistants shall be in accordance with Article 4—"Maximum Hours of the 'Code of Fair Competition for the Construction Industry'".

c. *Age Limit.*—Engineers shall not employ anyone less than sixteen years of age, except that persons between fourteen and sixteen may be employed for not to exceed three hours per day between 7 A.M. and 7 P.M. on such work as will not interfere with hours of day school.

d. *Stabilization of Employment.*—Engineers shall administer their functions so as to provide the maximum practicable continuity of employment to those in their employ.

ARTICLE IV—REGULATIONS GOVERNING RELATIONS BETWEEN ENGINEERS AND THEIR CLIENTS OR EMPLOYERS

Where the engineer's services involve a fee of \$1,000 or more, his relations with, and responsibilities to his client shall be evidenced by duly executed written agreements. Neither of the contracting parties shall assume any of the duties or responsibilities hereinafter defined as obligatory on the other nor may one of the contracting parties receive any part of the pay or profit hereinafter defined as belonging to the other.

An engineer shall at all times abide by the "Code of Ethics" adopted by the American Society of Civil Engineers, September 2, 1914, and by the "Code of Practice of the American Society of Civil Engineers", adopted January 18, 1927, which are appended hereto, and these codes of ethics and practice are hereby made a part of this Code of Fair Competition, and subject to the same conditions of enforcement as if herein written in full. Violation of this "Code of Fair Competition for Professional Engineers" shall justify cancellation of relations by a client, dismissal by an employer or discipline by the National Control Committee and/or prosecution at law under the provision of the National Industrial Recovery Act.

An engineer shall not.—a. Acquire, own or otherwise benefit by the purchase, sale, or ownership in any real estate or business interest which may be affected by any work for which he shares responsibility, except with full knowledge and consent of his employer.

b. Own stock in, or have other interest in, or in any way benefit from the business of a contractor employed on any work for which the engineer shares responsibility, except with the full knowledge and consent of his employer.

c. Accept any pay or commission, except as clearly stipulated in his contract or terms of employment, for the use of any materials, patented device, appliance, tool, or method employed on the work.

d. Accept any fee or gratuity for engineering or other services rendered to any contractor or subcontractor engaged on the work for which the engineer is engaged as the client's or employer's representative, or accept compensation, financial or otherwise for services in connection with such project, from any person other than his client or employer, except with the full knowledge and consent of his employer. Nothing herein shall be construed to operate against the prevailing and good practice by contractors and subcontractors of engaging engineers, other than the engineer of record for the work, to render engineering services to them in connection with their engagement as contractors or subcontractors.

e. Specify, direct, invite, or accept engineering designs, studies or sketches from a contractor, subcontractor, or supplier of materials, interested in the work or in bidding on any element of the work, where such are services herein defined, or defined in his agreement with his client or employer, as being the responsibility and duty of the engineer. This does not debar the customary shop and working drawings, made by contractors for the work to be executed by them, nor the use of technical trade information issued by producers for the information of engineers.

f. Give any rebate, discount, bonus, fee, or commission in order to reduce his fee, or to influence or procure employment.

ARTICLE V—UNFAIR PRACTICES

To maintain fair minimum salaries and wages for engineers and engineering assistants the National Control Committee through its subordinate regional, state or local committees, shall, within four months after the effective date of this Code, establish schedules of fair minimum rates for all types of engineering services functional to the Construction Industry. In arriving at these schedules the National Control Committee shall endeavor to prescribe rates equivalent to the average rates which obtained in each region at the beginning of the year 1929.

To assure fair competition and prevent rendering of services below cost of production, plus overhead, insurance and incidental expenses, plus a reasonable profit, and to insure fair bases for the determination of cost-plus-fee terms of employment, the National Control Committee shall develop, with the cooperation of its subordinate regional, state and local subcommittees, standards of cost accounting with uniform methods of determining overhead, inclusive of principal's time and other chargeable items.

To maintain fair minimum rates of charge for the various branches of engineering practice functional to the construction industry and to avoid price cutting among engineers in private practice, but without any attempt at price fixing, the National Control Committee through its subordinate regional, State, or local committees shall establish schedules of fair minimum charges, where practicable, for all types of engineering services functional to the Construction Industry. The recognition of such minimum schedules shall in no way operate against any engineer whose training, experience, reputation, or specialized practice justifies a higher schedule of charges.

In the operation of this Code, before the establishment of engineering fees as above described, no engineer shall charge for his services an amount less than that specified in the "Manual of Engineering Practice: Charges for Engineering Services" adopted by the American Society of Civil Engineers, September 1930, which is appended hereto.

In order to eliminate unethical and unfair competitive practices that violate sound public policy and proper professional procedure:

a. An engineer shall not enter into fee, salary, or wage competitive bidding with other engineers for a professional engagement.

b. An engineer shall not offer or provide free or contingent engineering services or free cost estimates in competition with any other engineer whose services have been retained for the work.

c. An engineer employed in a salaried position on full-time basis shall not solicit outside employment in competition with other engineers nor authorize the use of his name for the solicitation of outside work. He may serve in a consulting or advisory capacity with the consent of his employer.

d. No person shall perform or undertake to furnish or be responsible for engineering services unless he is qualified by education, experience, and organization and as herein defined.

The engineer should recognize and accept professional responsibility for the correctness, accuracy, and safety of his design and for the completeness of information given to the contractor. He should not require the contractor to be responsible for any work not called

for and not indicated by his plans and specifications and should not require that the work be acceptable to the engineer except in conformity with stipulated requirements of the plans and specifications. Where necessary, the engineer should obtain adequate and sufficient subsoil data and subsoil tests and he should supply such information to the bidders. He should stipulate fair and equitable liability and damage insurance, and bonus, damage, and indemnity provisions, where any or all of same are required.

The engineer shall observe the rules of fairness in making known all requirements for the work for which he is responsible.

Arbitration according to the procedure of the American Arbitration Association shall be accepted as the approved method for adjudication of disputes, after decision by the engineer, and precedent to action at law.

Contractors and others furnishing materials shall not include engineering designs or engineering services with the furnishing of materials except as hereinbefore provided in Article IV, e, and then only when making a separate and distinct charge for the same to be paid by the owner, said charge to be not less than the usual or prescribed professional charge made by engineers for such engineering designs or other engineering services.

The engineer shall definitely establish in his design and specifications, the amounts of tolerance which will be permissible, and shall include definite provisions for additional installations, replacements, etc., if such tolerances are exceeded.

The engineer shall state clearly the time requirements of the various elements of the work or shall require the contractor to state them at the time of bidding.

The engineer shall not submit his design drawings and specifications for contractor's bid until he has developed adequate preliminary information and essential pertinent data. He shall provide the contractor with opportunity to satisfy himself as to the adequacy of the engineering information given and the practicability of the type and method of installation shown on the engineer's design and covered in his specifications. Adequate information should be issued to all bidders alike and the engineer should require the successful contractor to recognize and accept his full responsibility for the successful and safe prosecution and completion of the work in accordance with the contract documents. The engineer shall permit the contractor to submit, for the engineer's consideration, plans and details showing the contractor's proposed methods of installation, plant layout, and erection of temporary structures, and require that the engineer's consent be received by the contractor before such methods are adopted. The engineer shall require that if there be any existing hazards for which the contractor is unwilling to accept responsibility, such exceptions be evidenced by the contractor prior to the signing of his contract.

The engineer, where so engaged, shall provide adequate and sufficient field supervision and inspection of the work and shall at all times be ready to accept or reject any part of the work as the installation proceeds.

ARTICLE VI—REGULATIONS GOVERNING THE ENGINEER

Recognizing the inherent differences in customs and procedures between the various branches of engineering involved in the general field of construction and that in any branch of engineering, customs and procedures differ depending upon the magnitude and complexity of a project and upon the experience and record of accomplishments of different engineers, and that some engineers are especially expert in highly specialized fields of engineering, this Article is necessarily a generalized statement of the duties to be undertaken and performed by the engineer. It is good practice that there shall be engaged engineers skilled in the specialized fields of engineering. This article does not cover detailed items of service incident to highly specialized fields of engineering, or to preliminary investigations or reports as to the feasibility of projects, but is a statement of minimum services to be performed by the engineer, the responsibilities for which may not be delegated by him except that this shall not prevent the employment of special services for surveys, subsoil investigations, laboratory analyses and tests, and similar services under the direction of the engineer as a separate account.

A. Investigations.—a. Investigations, surveys, and collection of all necessary or essential data, assuring the accuracy and completeness of such data in so far as it controls the type of design, method of installation, stability of structure, or completeness or fairness of the bids on the finished work.

b. Studies, preliminary designs and, where necessary or desirable, comparative cost estimates of same, in order to determine the ultimate design which will for safety and permanence best satisfy the requirements for feasibility of construction and economy.

c. Where necessary or desirable a report setting forth recommendations with such supporting statements, data and such drawings as are necessary for a clear understanding of the recommendations and the reasons therefor.

B. Designs, Contract Drawings, and Specifications.—a. Complete design of the work including all necessary design and contract drawings showing design details for the complete construction and/or installation of the work covered.

b. Complete specifications describing all elements of the work covered, particularly such elements as are not clearly or sufficiently detailed in the drawings, such specifications to outline methods called for as being acceptable to the engineer.

c. Invitation to bidders containing information sufficient to enable an experienced contractor to make a complete and fair bid covering the work.

C. Advisory Supervision of Construction.—a. General supervision and coordination of the installation of the work.

b. Estimates of the value of work installed for partial and final payments to contractors when necessary or advisable.

c. Survey, record drawings, and certification as to the completion of contractor's work.

D. Detailed Resident Supervision of Construction.—a. Resident supervision and detailed inspection of the work.

b. Field and/or shop inspection and tests of materials and equipment.

To effectuate the declared policy of the National Industrial Recovery Act, "to eliminate unfair competitive practices", and "to rehabilitate industry", the engineer's procedure for the selection of a contractor by competitive bidding shall be governed by the following basic principles.

Fair competition shall include consideration of capability, experience, honesty, financial stability, price, and time.

The form of contract affects bidding; the following forms of contract procedure, whether for entire projects or for any segregated component part thereof, are recognized as proper; (1) lump sum; (2) guaranteed outside price; (3) cost of work plus a fee; (4) unit prices.

The engineer should limit the bidding to contractors who have properly prequalified as to reputation, experience, and responsibility. He shall not recommend the award of the work unless the contractor can demonstrate to the awarding authorities that he is competent, technically and financially. A contract bond when required, shall not be held to reinforce or enhance a bidder's credit, stability or capacity, but shall be considered only as a protection against business accidents. Any bid may be accepted at the price originally submitted except as otherwise covered by law.

The engineer shall not sanction or permit the payment of any fees, bonuses, or other forms of payment by any bidder for services rendered in connection with securing an award, nor the disclosure by any contractor of any bid to a competitor or otherwise to induce secondary bidding, nor to engage in the unfair practice known as "bid peddling."

The engineer shall require that every rebate, refund, allowance, discount, commission, or service privilege in whatever form, be extended by a vendor to every purchaser under like terms and conditions.

To secure fair competitions as defined hereinbefore, no product or service shall be obtained below cost.

When practicable, bids shall be accepted within 20 days from bid date and quotations thereon by suppliers of material shall be held subject to acceptance within 30 days of such bid date.

All sales by suppliers of material to a contractor, except for cash, shall be stopped after 60 days' credit, unless through no fault of the contractor, payments to him have not been made in accordance with his contract.

ARTICLE VII—ADMINISTRATION

Amendments.—Amendments or revisions to this Code may be proposed by any truly representative professional engineering organization providing for membership as hereinbefore described, acting through the National Control Committee hereinafter defined.

National Control Committee.—To effectuate the purposes of this Code and provide for administrative control within the engineering profession, in so far as it is a function of the construction industry, a National Control Committee shall be established composed of four engineers appointed by the American Society of Civil Engineers, and one engineer appointed by each of the national professional engineering organizations providing constitutional provisions for membership as hereinbefore defined in Article II, and which are indicated in the first paragraph of the Preamble of this Code as having subscribed to this Code, and two engineers at large to be selected by the beforementioned members to represent the engineers who have no national professional engineering society affiliation.

This control committee shall have full authority to make all needful rules and regulations for the administration and enforcement of the provisions of this Code. This control committee shall have full authority to establish such subcommittees and such subordinate local, State, and regional committees and to prescribe such duties, rules, and regulations as are deemed necessary to carry out the purposes of this Code and of the National Industrial Recovery Act.

In the establishment of each such state committee (or where there is no state committee, in each regional committee), there shall be one representative, for each state, from the recognized existing or hereafter created state professional society, in which membership is contingent upon legal admission to the practice of engineering within that state. Such representative shall be designated by such recognized state society.

The National Control Committee shall coordinate its acts with the administrative agency established under the Code of Fair Competition for the Construction Industry.

Administration Expense.—All engineers in so far as their practice is a function of the construction industry and as defined in this Code shall bear their proportionate share of the expense of administration of this Code under such rules and regulations as may be approved by the President under Section 10 (a) of Title I of the National Industrial Recovery Act.

Effective Date.—This Code shall be effective when approved by the President of the United States and shall be applicable only to professional engineering services functional to the Construction Industry undertaken after such approval date.



UNIVERSITY OF FLORIDA



3 1262 08855 5650